

CLAIMS

1. A method of decreasing proliferation of an abnormally proliferating cell, said method comprising the step of contacting said abnormally proliferating cell with a *Sal2* nucleic acid sequence, wherein said contacting results in the expression of a *Sal2* polypeptide having tumor suppressive activity in said abnormally proliferating cell.

2. The method of claim 1, wherein said *Sal2* polypeptide comprises the amino acid sequence of SEQ ID NO:1 or 3.

10

3. The method of claim 1, wherein said abnormally proliferating cell has a proliferative disease-associated alteration in a *Sal2* nucleic acid sequence.

15

4. The method of claim 3, wherein said proliferative disease-associated alteration comprises a *Sal2* nucleic acid sequence that encodes a polypeptide that contains a substitution of a Cys for the Ser at position 73 of SEQ ID NO:1.

5. The method of claim 1, wherein said abnormally proliferating cell is an ovarian cell.

20

6. A method of decreasing DNA tumor virus replication and dissemination, said method comprising the step of contacting a cell infected with a DNA tumor virus with a *Sal2* nucleic acid sequence, wherein said contacting results in the expression of a *Sal2* polypeptide in said cell infected with said DNA tumor virus and prevents said DNA tumor virus from replicating and disseminating.

7. The method of claim 6, wherein said *Sal2* polypeptide comprises the amino acid sequence provided in SEQ ID NO:1 or 3.

8. The method of claim 6, wherein said DNA tumor virus is selected from the group consisting of, simian virus 40, human polyoma virus, herpes virus, primate adenoviruses, parvovirus, and papilloma virus.

5       9. An isolated Sal2 nucleic acid sequence encoding a polypeptide that contains a substitution of a Cys for the Ser at position 73 of SEQ ID NO:1.

10      10. The Sal2 nucleic acid sequence of claim 9, wherein said Sal2 nucleic acid sequence is a human Sal2 nucleic acid sequence.

10

15

20